



## For Parents of Babies with Sickle Cell Trait

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You have learned that your baby has sickle cell trait, also called hemoglobin S trait. This means that your baby's red blood cells have a different kind of hemoglobin along with the usual kind. It is not a disease. It cannot cause your baby to become ill.

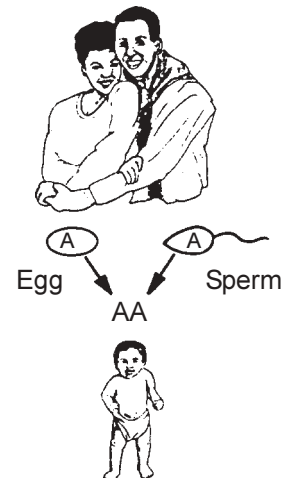
Usual Hemoglobin  
(AA)

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### What is hemoglobin?

Hemoglobin is found in the red blood cells of all people. It gives blood its red color and carries oxygen to all parts of the body. There are many types of hemoglobin. They are passed down in the family from parent to child in the genes. Genes are the tiny bits of information found in the father's sperm and the mother's egg. Together this information forms a pattern for a new life. Most people have two genes for hemoglobin A. This means that they received one gene for hemoglobin A from each parent and make red blood cells with hemoglobin A only.



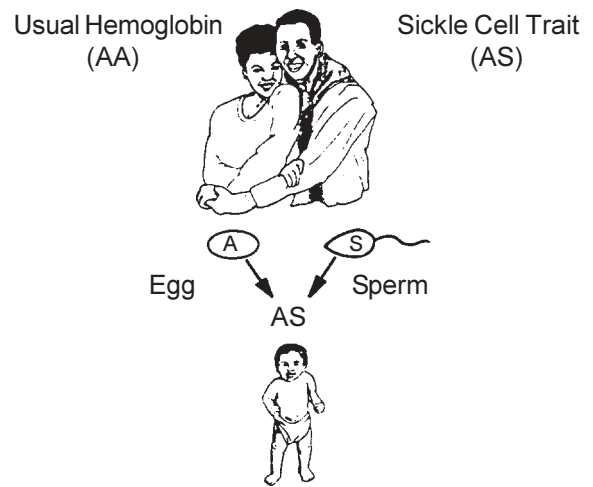
Babies get one gene for hemoglobin type from each parent. This baby has the usual hemoglobin.

## What is hemoglobin S?

Hemoglobin S (also called sickle cell hemoglobin) is slightly different from hemoglobin A. Hemoglobin S is more often found in people whose families came from Africa, Mexico, Central America, India, the Middle East, and parts of Europe and Asia. However anyone can have red blood cells with hemoglobin S.

## What is sickle cell trait?

Sickle cell trait occurs when a baby receives a gene for hemoglobin A from one parent and a gene for hemoglobin S from the other parent. The baby makes red blood cells containing both A and S hemoglobin. This is **not** a disease. Other common hemoglobin traits are AD (D trait), AC (C trait), and beta thalassemia trait. In addition, there are other less common traits.



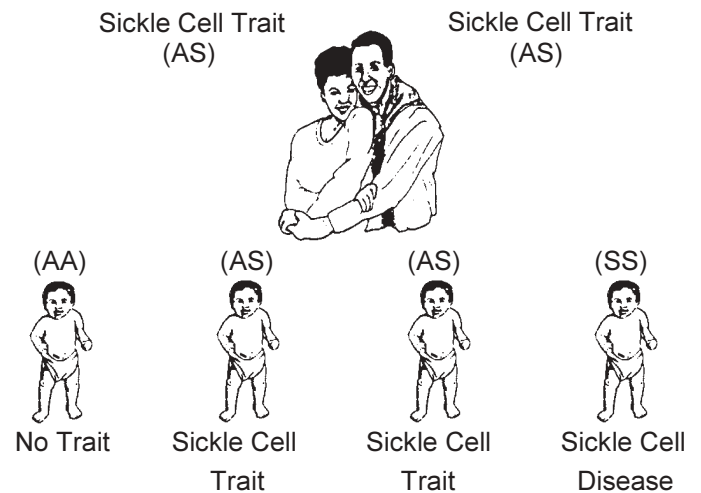
This baby has sickle cell trait. It is **not** a disease. It will not cause health problems.

## If our baby is healthy, why should we be tested?

There are some combinations of hemoglobin types that can cause serious health problems. Blood tests can tell you your hemoglobin type. If one parent has only hemoglobin A and the other has hemoglobin S, future children will not have a hemoglobin disease. However if both parents have a hemoglobin trait, a future child may have a hemoglobin disease.

## What is sickle cell disease?

Sickle cell disease occurs when a person receives one gene for sickle (S) hemoglobin from one parent and a sickle (S), C, D, E or beta thalassemia gene from the other parent. This disease can cause serious long term health problems.



If both parents have sickle cell trait, they have a 25% chance (1 in 4) with each pregnancy of having a baby with sickle cell disease.

## Remember - your baby is healthy

Your baby has a hemoglobin trait. It is **not** a disease. It will never change into a disease.



You can be tested.